

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
REQUEST FOR FILING APPLICATION UNDER RULE 53(b)**

Pursuant to 37 CFR 1.53(b), please file a ☐ continuation/☒ divisional
of the pending prior PATENT APPLICATION of:
Inventor: NATHAN
Serial No. 09/357,762
Filed: July 21, 1999
For: **AUDIOVISUAL REPRODUCTION SYSTEM**
Assistant Commissioner for Patents
Washington, DC 20231
Sir:

jc685 U.S. PTO



07/24/00

Atty Dkt.: 871-87
C# M#
Date: July 24, 2000
Group: 2711
Examiner: H. Tran

JC877 U.S. PTO
09/621675
07/24/00

This request for filing under Rule 53(b) is made by the following named inventor(s) (using the above-identified title):
Inventor(s): NATHAN

- ☒ Attached is a true copy of the prior application as originally filed including the specification, claims, Oath/Declaration and drawings (if any) and abstract (if any). No amendments (if any) referenced in the Oath or Declaration filed to complete the prior application introduced new matter.
- ☒ Priority is hereby claimed under 35 USC 119 based on the following foreign applications, the entire content of which is hereby incorporated by reference in this application:

<u>Application Number</u>	<u>Country</u>	<u>Day/Month/Year/Filed</u>
98 09352	France	22 July 1998

☐ certified copy(ies) of foreign application(s) attached or

☐ already filed on _____ in prior appln. no. _____ filed _____

☒ already filed in 09/357,762 filed July 21, 1999

- ☐ Please amend the specification by inserting before the first line: -- This application claims the benefit of U.S. Provisional Application No. _____, filed _____, the entire content of which is hereby incorporated by reference in this application.--

☒ The prior application is assigned to Touchtunes Music Corporation.

☒ Power of Attorney has been granted to Joseph S. Presta et al, Reg. No. 35,329 of Nixon & Vanderhye P.C., 1100 N. Glebe Rd., 8th Flr, Arlington, VA 22201.

☒ Address all future communications to: Nixon & Vanderhye P.C., 1100 N. Glebe Rd., 8th Floor, Arlington, VA 22201.

☒ Please amend the specification by inserting before the first line --This is a divisional of application Serial No. 09/357,762, filed July 21, 1999, now pending, the entire content of which is hereby incorporated by reference in this application.--

☐ "Small entity" statement of record. ☐ "Small entity" statement attached.

☐ Petition filed in prior application to extend its life to insure copendency.

☒ The Examiner's attention is directed to the prior art cited in the parent application by applicant and/or Examiner for the reasons stated therein.

☒ Please enter the attached and/or below preliminary amendment prior to calculation of filing fee:

☒ The entire disclosure of the prior application above-referenced is considered as being part of the disclosure of this new application and is hereby incorporated by reference therein.

FILING FEE IS BASED ON CLAIMS AS FILED LESS ANY HEREWITH CANCELED

Basic Filing Fee		\$	690.00
Total effective claims	5 - 20 (at least 20) =	0 x \$ 18.00	\$ 0.00
Independent claims	1 - 3 (at least 3) =	0 x \$ 78.00	\$ 0.00
If any proper multiple dependent claims now added for first time, add \$260.00 (ignore improper)			\$ 0.00
SUBTOTAL			\$ 690.00
If "small entity," then enter half (1/2) of subtotal and subtract			\$(0.00)
SECOND SUBTOTAL			\$ 690.00
Assignment Recording Fee (\$40.00)			\$ 0.00
TOTAL FEE ENCLOSED			\$ 690.00

Any future submission requiring an extension of time is hereby stated to include a petition for such time extension. The Commissioner is hereby authorized to charge any deficiency in the fee(s) filed, or asserted to be filed, or which should have been filed herewith (or with any paper hereafter filed in this application by this firm) to our **Account No. 14-1140**. A duplicate copy of this sheet is attached.

1100 North Glebe Road, 8th Floor
Arlington, Virginia 22201-4714
Telephone: (703) 816-4000
Facsimile: (703) 816-4100
JSP:mg

NIXON & VANDERHYE P.C.

By Atty: Joseph S. Presta, Reg. No. 35,329

Signature: _____

444930

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent Application of

NATHAN

Atty. Ref.: 871-87

Serial No. Unknown

Group: 2711

Filed: July 24, 2000

Examiner: H. Tran

For: AUDIOVISUAL REPRODUCTION
SYSTEM

* * * * *

July 24, 2000

Assistant Commissioner for Patents
Washington, DC 20231

Sir:

PRELIMINARY AMENDMENT

In order to place the above-identified application in better condition for examination, please amend the application as follows:

IN THE CLAIMS

Please cancel claims 1-13 without prejudice or disclaimer.

NATHAN
Serial No. Unknown

REMARKS

Favorable examination is earnestly solicited.

Respectfully submitted,

NIXON & VANDERHYE P.C.

By:



Joseph S. Presta
Reg. No. 35,329

JSP:mg
1100 North Glebe Road, 8th Floor
Arlington, VA 22201-4714
Telephone: (703) 816-4000
Facsimile: (703) 816-4100

444931

Our Ref.: 871-64
TT/13/US

U.S. PATENT APPLICATION

Inventor(s): Guy NATHAN

Invention: AUDIOVISUAL REPRODUCTION SYSTEM

***NIXON & VANDERHYE P.C.
ATTORNEYS AT LAW
1100 NORTH GLEBE ROAD
8TH FLOOR
ARLINGTON, VIRGINIA 22201-4714
(703) 816-4000
Facsimile (703) 816-4100***

SPECIFICATION

AUDIOVISUAL REPRODUCTION SYSTEM

Field of the invention

This invention relates to a digital audiovisual reproduction system triggered by the payment of fees.

Background of the invention

5 International patent application WO 96/12257 deposited by the applicant relates to a system for a digital audiovisual reproduction system which will be described later. This system is also called a juke-box, and is usually placed in a leisure area such as a
10 bar. The bar manager who rents the audiovisual reproduction system from an operator can access functions for setting physical parameters, and also a management mode, through a touch screen and a graphic interface. He can use this screen and this interface
15 to order musical selections through an audiovisual data distribution network and a host server, and these musical selections will be downloaded onto the audiovisual reproduction system by a host server in the downloading center. The operator can also access
20 configuration functions for the reproduction system and can also order downloadable musical selections. Customers select songs using the touch screen

associated with the graphic interface. This system is very efficient for the reproduction of sound and images, but it requires a certain amount of skill to set the physical parameters and requires frequent
5 movements by the operator. Furthermore, not all capabilities of the system are used.

Objects and summary of the invention

Therefore, the purpose of this invention is to
10 overcome the disadvantages of prior art by proposing an audiovisual reproduction system with many functions, particularly to enable increased interaction between the audiovisual reproduction system and the various user types, and to simplify its use.

15 The first purpose of this invention is to propose a function for controlling the volume of the sound output through the loudspeakers.

This purpose is achieved by the fact that the Audiovisual reproduction system comprising a central
20 unit managing a sound control circuit, and a telecommunications modem connected to a distribution network controlled by a host server, through a multitask operating system created around a library of tools and services, wherein the operating system
25 comprises a function that adjusts the sound control circuit to couple volumes in the various areas in which the loudspeakers in the audiovisual reproduction system are used, this function being accessible through a management mode of the multitask operating system, the
30 coupling maintaining the ratios between the various volumes in each area when the volume in one area is modified.

According to another feature, the volume generated by the loudspeakers is programmable using a tools and

services library management mode as a function of the time of the day.

According to another feature, the volume setting parameters can be downloaded through a request sent by
5 the host server to the telecommunications modem in the audiovisual reproduction system.

A second purpose of this invention is to facilitate the work done by operators.

This second purpose is achieved by the fact that
10 the audiovisual reproduction system comprises of a central unit controlling the display means, a touch screen, memory means and a telecommunications modem connected to a distribution network controlled by a host server through a multitask operating system
15 comprising a library of tools and services, wherein the operating system of the reproduction system automatically sends a request to the host server requesting that at least one selected song be downloaded, each song being determined as a function of
20 the answers to a questionnaire, which is stored in a file in the system memory means, to be displayed by display means at the appropriate moment, and to which users reply by actions on the touch screen.

According to another feature, the reproduction
25 system or the operator download a list of songs on the host server through the information distribution network, the host server then downloading the songs in the list prepared by the operator into the memory means of a determined audiovisual reproduction system through
30 the same distribution network.

According to another feature, an order is sent to at least one determined reproduction system through a file downloaded on the reproduction system through the host server, this order being memorized by the

reproduction system and used to play one or more particular songs at one or more particular moments.

A third purpose of this invention is to enable interaction between the user and the audiovisual reproduction system.

This third purpose is achieved by the fact that the reproduction system comprises a central unit controlling display means, a touch screen, memory means and a telecommunications modem, through a multitask operating system comprising a library of tools and services, wherein at least one image or animation describing at least one coming artistic event close to the location in which the audiovisual reproduction system is installed, is firstly downloaded into a file in the reproduction system, and the reproduction system operating system reads this file so that the display means of the audiovisual reproduction system can be used to show the image(s) and/or the animation(s) memorized in the file, at specific regular intervals or after a selection of music performed by the artist participating in the artistic event.

According to another feature, the display means show a screen that users of the audiovisual reproduction system can use through the telecommunications means to order entry tickets for the artistic events displayed on the display means, the payment for these entry tickets being made through payment means forming part of the audiovisual reproduction system.

According to another feature, the reproduction system comprises printing means for printing entry tickets or means of recording the entry tickets corresponding to artistic events shown on the display means, on a portable electronic object.

According to another feature, the display means use a file in the operating system of the reproduction system to show a screen on the display means inviting the user to answer a series of questions by touching the touch screen, the answers to the questions then being stored in a file stored in the memory means to be sent later to the downloading center for processing.

According to another feature, the display of the series of questions is initiated after a given song has been selected, or as a function of the number of selections made by the user.

According to another feature, the information related to each image and/or animation is stored in a downloadable file on the memory means of the audiovisual reproduction system through a request sent by the host server.

According to another feature, the display means in the audiovisual reproduction system are used after a determined number of paying musical selections have been made, to display an interactive advertisement recorded in a file in the memory means, and consisting of a game in which the user can either win a musical selection, or answer a questionnaire recorded in the memory means of the system, or obtain free tickets to attend an event.

A fourth purpose of the invention is to increase flexibility of use offered to the operator.

This fourth purpose is achieved by the fact that the audiovisual reproduction system comprises a central unit controlling display means, memory means controlled by an operating system comprises a tools and services library, wherein an operator can access a module in the tools and services library, to offer the manager of the audiovisual reproduction system a given number of credits, one credit corresponding to the fee necessary

to select one song, the number of credits being stored in a file on the memory means, this file being updated each time that the manager uses a credit and each time that the operator supplies one or more credits.

5 According to another feature, credits supplied by the operator can be used within a given time range determined by a program module that displays a special screen for selection of time ranges within which the credits in the reserve may be used.

10 According to another feature, credit reserve can only be used by the manager, and is controlled by the manager entering a confidential code requested every time before the use of a credit in the reserve is validated...

15 According to another feature the operation consisting of crediting the credit reserve can only be used by the operator by entering a confidential code requested every time before adding a credit to the reserve is validated.

20 credits supplied by the operator can be used within a given time range.

 According to another feature, the operator can limit the ranges of values within which the manager can
25 modify the physical parameters of the audiovisual reproduction system.

 Other features and advantages of this invention will become clearer after reading the following description with reference to the attached drawing.

30

Brief description of the drawing

- The sole shows an electrical diagram for an audiovisual reproduction system according to prior art compatible with the characteristics of
35 the invention.

Description of the preferred embodiments

Before beginning the actual description, it is worthwhile defining a number of elements. Firstly, the term "operator" is used in this description to describe a person or a company who installs and maintains the audiovisual reproduction system. The term "manager" is used to describe a person or a company who rents the audiovisual reproduction system, usually from an operator, and who uses the system for profit making purposes. Finally the term "user" is used to describe any person who uses the reproduction system rented by a manager for leisure purposes.

For example, the reproduction system used for application of the characteristics of the invention is as described in international patent application WO 96/12257 deposited by the applicant.

Preferably, but non-restrictively, the audiovisual reproduction system uses the hardware components listed and referenced below.

The central microprocessor unit (1) is a high performance PC compatible system, the choice at the time of the installation being made for an Intel type system which has at least the following memory means and characteristics:

- compatibility with the Vesa local bus
- processor cache memory: 256 kbytes
- 32 Mbyte of RAM
- high performance serial and parallel ports
- SVGA microprocessor type graphic adapter
- SCSI/2 type bus controller
- self-powered static RAM.

Another central unit with equivalent performances could be used in the invention.

This central unit controls and manages a sound control circuit (5), a telecommunications control circuit (4), an input control circuit (3), a mass memory control circuit (2), and a display means control circuit (6). The display means comprise mainly of an SVGA type high resolution, low radiation, flat screen video monitor (62) without interlacing, this monitor being used for reproduction of images (for example album covers of musical selections), graphics and video clips.

The memory means also include storage modules (21) using high speed, high capacity, SCSI hard disks, and are associated with memory means already installed in the microprocessor device. These modules are used for the storage of audiovisual information.

A 28.8 kbps high speed telecommunications modem adapter (41) is included to enable the link to an audiovisual information distribution network controlled by a host server.

For reproduction of sound information for musical selections, the system comprises loudspeakers (54) receiving the signal from an amplifier-tuner (53) connected to the music synthesizer type of electronic circuit (5) designed to support a large number of input sources while providing an output with a CD (compact disk) type of quality, for example such as a "Sound Blaster" multimedia audio adapter card for use with a microprocessor

A 240 watt ventilated power supply with temperature control provides energy to the system. This power supply is protected against overvoltages and over oscillations.

The audiovisual reproduction system manages a touch screen (33) through its input controller circuit (3) which includes a glass coating panel using the

"advanced surface wave technology", and an AT type bus controller. This touch screen is used to display various items of selection information used by customers on the video monitor (62) or a television screen (61), or management command and control information used by the manager or the owner of the system. It is also used, for maintenance purposes, in combination with an external keyboard (34) that can be connected to the system which is already fitted with a keyboard connector for this purpose, controlled by a key lock (32) through the interface circuit (3).

The input circuit (3) also interfaces with the system through a remote control assembly (31), for example composed of:

- an infrared remote control, emitter that has 15 control keys for the microprocessor system and 8 control keys for the projection device.
- an infrared receiver with adapter.

A fee payment device (35) is also connected to the input interface circuit (3). It is also possible to use any other device accepting any other method of payment by coins, notes, tokens, smart cards or a combination of these methods of payment.

It is preferable that the system should be housed inside a steel frame that can be personalized with external parts.

Apart from these elements, a cordless microphone (55) is connected to the sound controller (5), which can transform this sound controller into a powerful public address and information system, or possibly a karaoke machine. Similarly, the system can use a cordless loudspeakers system.

The manager can use the remote control assembly (31) to access and control various controls such as the following, for example from behind the bar:

- the microphone on/off control,
 - the loudspeakers mute control,
 - the sound volume control,
 - a control canceling the musical selection
- 5 currently being played.

The system operating software is built up around a library of tools and services specifically oriented towards audiovisual applications in a multimedia universe. This library advantageously includes a high

10 performance multitask operating system that efficiently enables simultaneous execution of multiple code fragments. This operating system thus enables concurrent execution of operations carried out on the display means, sound reproduction means and the

15 management of telecommunications links through the distribution network, in an orderly manner while avoiding any conflicts. This software is also very flexible.

Digitized and compressed audiovisual data are

20 stored in the memory means (21).

Each selection is available in two digitized formats, with hi-fi quality or CD quality.

It is essential to note that although all modules described later are apparently used sequentially, in

25 fact the tasks specific to these modules are executed simultaneously in an environment using the multitask operating system.

The first module, called the SSM module, is the system start module. This module only supplies a

30 single service, and consequently it is automatically loaded when the system is switched on. If the system is started with a correct registration number, it then directly enters the "in service" mode of the RMM module.

The REG module is the registration mode module which, when activated for the first time or when approval is necessary for a new registration, states its software serial number and asks the user to input
5 information about himself such as the building name, address and telephone number.

The RMM module is the "in service" mode module, and the system enters this operating mode as soon as the registration number has been validated. In this mode,
10 the system is ready to handle any request that may be initiated by various predefined events, such as for example:

- customers who touch the screen: when a customer or a user touches the screen, the system
15 transfers control of the foreground session to the CBSM (customer browse and select mode) module,
- requests to call the telecommunications server network: the system sends an asynchronous
20 background procedure when it detects a loop on the telephone line; the TSM (telecom services mode) module,
- requests about the key switch (32): when the manager turns the key switch, the system hands
25 over control of his foreground session to the SMM (system management mode) module,
- reception of a remote control signal; when a command is received, SMM system management module processes it in a background session, while the
30 foreground session remains available for other actions,
- the appearance of an end of time out showing that the system is inactive: when one of the various time-outs is activated, control is temporarily

handed over to the IRM (inactivity routine module) for processing.

The system remains in "in service" mode until one of the events described above occurs.

5 The IRM module is the inactivity routines module. This module contains routines performing predetermined functions such as displaying the cover of an album, playing parts of musical tracks present in the system, reproduction of complete selections for internal
10 promotional purposes, audio reproductions for external promotional purposes, spoken promotional announcements of new musical selections, fallback to an auxiliary source that may be used when the system is inactive and after a predetermined but adjustable time period has
15 elapsed, corresponding to a time out.

The SMM module is the system management module. This module carries out functions that order the system to accept input requested through a infrared remote control device, these functions being processed
20 immediately without stopping the process that is taking place. A very large number of functions of this type is possible, and some possible functions are listed in the following non-restrictive list:

- 25 - adjustment of the sound volume of played selections,
- adjustment of the sound volume of the played auxiliary source,
- switching the microphone on/off,
- adjusting the microphone sound volume,
- 30 - balance adjustment, right channel, left channel,
- control of low frequency volumes,
- control of high frequency volumes,
- order to cancel or skip a range in a musical selection,
- 35 - order for panoramic effects, zoom in, zoom out,

- trigger reinitialization of the software program.

The MMM module is the management mode module. This module is triggered when the manager turns the key switch. The ordinary screen display is replaced by a display specific to system management. With this new display, the manager is able to control all settings that can be made with the remote control. He can input additional low level commands, for instance to define commands to be enabled or disabled on the remote control. He can also define a maximum number of high and low levels for each system output source, these limits defining the range available on the remote control. The manager can use this screen to access new selection acquisitions mode by touching a button marked on the touch screen. When the manager has finished defining these commands and the system configuration, he simply removes the key and the system automatically returns to "in service" mode.

The NSAM module is the new selection acquisitions mode module.

The CBSM module is the customer browse and select mode module. This module is accessed from "in service" mode when the customer touches the screen. The user can display a menu that he can use for extensive browsing assisted by digitized voice messages to guide him in his choice of musical selections.

The TSM module is the telecommunications services mode module between the host server and the audiovisual reproduction system. This module is used to manage all management services available on the distribution network. All tasks specific to telecommunications are managed as system background tasks. These tasks never use more than a proportion of the processing time remaining after the system has completed all its foreground tasks. Thus when the system is busy with

one of its high priority tasks, telecommunications tasks automatically attempt to reduce constraints on the system resources and recover whatever microprocessor processing time remains available.

5 The SSC module is the system security control module. This module manages system security, each system gets into contact with a local controller system according to a predetermined time scheme for acquisition of the approval signal in the form of the
10 registration number which enables it to operate. Furthermore, the said system automatically stops operating if a fraud is observed or if the system can no longer communicate to the network.

 The SPMM module manages selections of music, songs
15 or videos queued by the system to be executed in the order in which they were selected.

 Finally, the manager uses the remote control to manage the system through the SMM module.

 The multitask operating system is the essential
20 element to enable simultaneous execution of multiple code fragments and to manage priorities between the various tasks that are awakened.

 According to the invention, the volume settings in the various areas may be coupled if management mode is
25 activated. This particular procedure is included in the MMM management module and is materialized on the touch screen (33) by a specific display comprising a button. The coupling procedure is activated when the manager or the operator touches this button. The first
30 operation carried out by this function is to read values of the sound volumes in the different areas from a file stored on the reproduction system memory means, and the ratios between these various values will be calculated. These ratios are stored in a file stored
35 on the reproduction system memory means (21). When the

volume of a determined area is subsequently modified, the procedure automatically reads the new value of the volume in the determined area and calculates the values of the volumes for the other areas such that the ratios
5 between the values for the various areas are identical to the previously calculated and stored ratios. When the coupling procedure is activated, and when the maximum value of the sound volume in one of the areas is reached, increasing the volume in any other area
10 will have no effect. The coupling function is deactivated either by touching the activation button again, or by touching another button, identified as deactivation button on the touch screen.

Advantageously, in order to avoid repeated
15 manipulations to modify the volume, volume modifications are stored in a file so that the volume in different areas can be reduced or increased at determined times. For example (1), this function performed by a routine in the reproduction system
20 operating system, is very useful when the reproduction system is located (1) in a bar. The background noise due to the presence of customers varies at different times of the day. This background noise is higher in busy periods, in other words usually during the
25 evening, and is low when there are fewer people. This situation requires that the sound volume of the reproduction system should be adapted as a function of the background noise. Thus according to the invention, the volume level can be programmed in advance as a
30 function of the time of the day. The routine in the operating system of the audiovisual reproduction system reads this file later, thus automatically making the preprogrammed changes to the volume level.

Advantageously, the file containing the volume
35 settings as a function of the time of the day can be

downloaded onto the memory means of the audiovisual reproduction system through the data distribution network and the reproduction system modem (41), in other words there is no need to be able to access reproduction system in order to create this file. The file may be generated on a different computer system and then downloaded onto the reproduction system through the distribution network and the telecommunications modem (41).

10 Audiovisual reproduction systems according to prior art enable downloading of new selections through a distribution network and a host server. However, commands for new selections must be made through the touch screen (33) and a module in the operating system of each reproduction system, and in some cases requires operator intervention. In order to avoid repeated movements of the operator to order new selections, the operating system has a procedure integrated into a module of the reproduction system by which the user can choose at least one new selection in a list. This procedure consists of starting to read the file stored on the memory means which displays a special screen on the display means (62). This screen contains a window in which a list of songs is displayed in the form of a popup menu. This list corresponds to selections that are not yet available on the audiovisual reproduction system, but which could be downloaded on the reproduction system. Thus, a message is displayed on the screen inviting users to select the new song(s) that they would like to have on the audiovisual reproduction system simply by touching the touch screen (33) on the title of the required song. Users' choices are memorized in a file stored on the memory means, which is updated whenever a user chooses a new selection in the list. The number of times that a

selection is chosen is counted. This number is then compared with a predetermined threshold. When the number of times that a selection is chosen exceeds a predetermined threshold, the reproduction system sends
 5 a request to the host server to request that the selection is downloaded. Thus, new selections are ordered and downloaded without action by the manager or the operator, which considerably simplifies the operation of ordering new selections.

10 Advantageously, in order to avoid the operator needing to move to order new selections, the operator is also able to download new selections onto an audiovisual reproduction system without using the touch screen in the reproduction system. In order to use
 15 this feature, the operator must have a computer connected to the reproduction systems host server through a data distribution network. The operator prepares a list of new selections to be downloaded and then sends a request to the host server through the
 20 distribution network. This request includes the list of new selections to be downloaded and the identification of the reproduction system on which the new selections are to be downloaded. When the host server receives this request, the new songs on the list
 25 will be downloaded onto the memory means of the reproduction system corresponding to the identification. After these new selections have been received, the reproduction system updates the list of available musical selections. Thus, the new selection
 30 control operation is carried out without any need for the operator to move.

Another feature of the reproduction system according to the invention is to enable a particular song to be played at a defined time simultaneously on
 35 at least one determined reproduction system. For

example, this feature may be used to promote a new album or a concert given by a singer. For example, this feature could be used to play the title song of a singer's new album on all reproduction systems, on the day that it is distributed in the shops. This feature can also be used to distribute a song by this singer on reproduction systems located close to the location at which a concert given by the singer will shortly be held. Playing a particular song at a particular moment on at least one particular reproduction system is initiated by a series of orders contained in a file located on each audiovisual reproduction system. The orders contained in the file determine which song should be played and the moment(s) at which it should be played. Advantageously, the file containing orders for execution of the particular song at a particular moment is downloaded on each reproduction system concerned through the host server and the distribution network. The orders contained in the file will be executed when the audiovisual reproduction system reads this file.

The reproduction system according to the invention can also be used to create an interaction with the user. This interaction is materialized by a series of functions. The first function consists of using display means (62) to show at least one image and/or animation related to a coming artistic event close to the reproduction system. This display informs the users about this event. These sequences of images and/or animations are memorized in a file stored on the memory means of the reproduction system. The images and/or animations will be displayed when this file is read, for example through the IRM module (inactivity routines management module). Advantageously, a user can use the reproduction system according to the

invention to order entry tickets for the artistic event described by the images and/or animations displayed on the display means of the reproduction system. A special button is displayed on the screen displaying the images and/or animations of the artistic event, for this purpose. If a user touches this button, a subroutine starts which will display a new screen. The user can use this new screen to order tickets for the artistic event. For example, the screen may have different possible booking dates, the type of seats available, the means of payment preferred by the user and any other information necessary to prepare the entry ticket. Advantageously, the payment means (35) in the audiovisual reproduction system are used for payment of the entry tickets. Advantageously the audiovisual reproduction system comprises means that firstly enable communication with the host server or the rental server and secondly, after receiving agreement, are capable of printing entry tickets. The means of issuing entry tickets also or alternatively comprise means of recording the entry ticket on a portable electronic object, such as a smart card. For example, these means may include means of reading from and writing to the electronic circuit of a smart card. When a user would like to book an entry ticket, a screen invites him to insert his card in the reading and writing means. This action triggers a procedure in the operating system of the reproduction system which firstly triggers a new card user identification procedure and secondly (after the entry tickets rental server has approved) triggers steps to record the entry ticket on the card electronic circuit. The file memorizing images and/or animations describing the artistic event may advantageously be downloaded on at

least one audiovisual reproduction system through the host server and the distribution network.

Another feature of the reproduction system according to the invention is to make a request to users by means of at least one image stored in a file and displayed by display means (62) of the audiovisual reproduction system by executing a procedure in the operating system of the audiovisual reproduction system. The procedure is triggered whenever a particular event occurs. The image comprises a series of windows. For example, a first window may include a series of questions about the user, for example his or her age, sex, profession and/or any other information. A second window may for example include a series of questions about the required inquiry. For example this inquiry may be a satisfaction inquiry about a particular artist, or any other inquiry. Each question is associated with a particular answer area on the touch screen (33). The answers to the various questions are made simply by touching this area. Answers to the various questions in the inquiry are memorized in a file stored on the memory means of the audiovisual reproduction system. This file is then downloaded onto the host server. Advantageously, a subroutine in the operating system verifies if the questionnaire corresponding to the inquiry was fully filled in by the user. If so, the operating system triggers a subroutine that will credit means (35) of payment of an amount corresponding to one song selection and informs the user that he has the right to select an additional song, by displaying a special screen. Advantageously, the procedure to display the screen containing the series of questions is triggered by a predetermined event. For example, this event may be the selection of a particular song or the n(th)

selection of the same or a different song by the same user, which corresponds to a determined payment amount.

Advantageously, the display means (62) of the reproduction system are used to display advertisements.

5 Advertising displays are triggered by a subroutine in the operating system, for example after the user has made a given number of paying musical selections. This advertisement, memorized in a file stored on the memory means, appears in the form of a game designed around
10 the company being advertised. Interaction between the user and the game forming the interactive advertising consists of the user pressing on the touch screen (33) of the reproduction system. If the user wins the game, a subroutine in the operating system of the
15 reproduction system is triggered to either credit payment means (35) by an amount corresponding to the selection of a song and inform the user on a specific screen that he has the right to make a musical selection of his choice free of charge, or to display a
20 special screen inviting the user to answer a questionnaire. For example, the questionnaire may be an inquiry about satisfaction with the audiovisual reproduction system or any other inquiry of the type described above.

25 The reproduction system according to the invention also provides the operator with a certain degree of flexibility. With the audiovisual reproduction system according to the invention, the operator can pay the manager of the reproduction system for a particular
30 number of credits. A credit is equal to the fee necessary to select one song. This credit reserve is stored in a file stored on the memory means (21) of the reproduction system. To add one credit to the reserve, the operator accesses a first specific button, using a
35 specific screen. Touching the touch screen (33) at the

position of this button triggers a subroutine in the reproduction system which updates the file corresponding to the credit reserve and adds one credit to this reserve. When the manager wants to use a credit in the reserve, he uses a second special screen to access a second special button. Touching the touch screen (33) at the location of this second button triggers a subroutine in the operating system which firstly credits the payment means (35) of the reproduction system by an amount corresponding to payment of the price to select one song, if the credit reserve is not empty, and secondly updates the file corresponding to the credit reserve by removing one credit from the reserve. The use of credits is reserved exclusively for the manager, who uses them by inputting a code required when the second special button is used or by means of a special function on the remote control means (31). Access to the credit reserve file is reserved exclusively to the operator (for example by means of a code requested when the first special button is used). Thus, the operator alone can increase the credit reserve, and the manager alone can use this reserve. Advantageously, there is a program module for displaying a special screen to define time periods during which credits offered by the operator can be used. A subroutine prevents access to the second special button outside these determined time ranges, so that the manager cannot use credits in the reserve.

30 In order to prevent the manager from incorrectly using management mode functions of the audiovisual reproduction system, the operator may fix ranges of values between which the manager can modify the physical settings of the audiovisual reproduction system. These limitations are made by means of low

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[illegible]

CLAIMS

1. Audiovisual reproduction system comprising a central unit managing a sound control circuit, and a telecommunications modem connected to a distribution network controlled by a host server, through a
5 multitask operating system created around a library of tools and services, and wherein the operating system comprises a function that adjusts the sound control circuit to couple volumes in the various areas in which the loudspeakers in the audiovisual reproduction system
10 are used, this function being accessible through a management mode of the multitask operating system, the coupling maintaining the ratios between the various volumes in each area when the volume in one area is modified.
- 15 2. Audiovisual reproduction system according to claim 1, wherein the volume generated by the loudspeakers is programmable using a tools and services library management mode as a function of the time of the day.
- 20 3. Audiovisual reproduction system according to claim 1, wherein the volume setting parameters can be downloaded through a request sent by the host server to the telecommunications modem in the audiovisual reproduction system.
- 25 4. Audiovisual reproduction system consisting of a central unit controlling the display means, a touch screen, memory means and a telecommunications modem connected to a distribution network controlled by a host server through a multitask operating system
30 comprising a library of tools and services, wherein the operating system of the reproduction system automatically sends a request to the host server requesting that at least one selected song be

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downloaded, each song being determined as a function of the answers to a questionnaire which is stored in a file in the memory means to be displayed by display means at the appropriate moment, and to which users
5 reply by actions on the touch screen.

5. Audiovisual reproduction system according to claim 4, wherein an operator or the reproduction system download a list of songs on the host server through the information distribution network, the host server then
10 downloading the songs in the list prepared by the operator into the memory means of a determined audiovisual reproduction system through the same distribution network.

6. Audiovisual reproduction system according to
15 claim 4, wherein an order is sent to at least one determined reproduction system through a file downloaded on the reproduction system through the host server, this order being memorized by the reproduction system and used to play one or more particular songs at
20 one or more particular moments.

7. Audiovisual reproduction system comprising a central unit controlling display means, a touch screen, memory means and a telecommunications modem, through a multitask operating system comprising a library of
25 tools and services, wherein at least one image or animation describing at least one coming artistic event close to the location in which the audiovisual reproduction system is installed, is firstly downloaded into a file in the reproduction system, and the
30 reproduction system operating system reads this file so that the display means of the audiovisual reproduction system can be used to show the image(s) and/or the animation(s) memorized in the file, at specific regular intervals or after a selection of music performed by
35 the artist participating in the artistic event.

8. Audiovisual reproduction system according to claim 7, wherein the display means show a screen that users of the audiovisual reproduction system can use through the telecommunications means to order entry tickets for the artistic events displayed on the display means, the payment for these entry tickets being made through payment means forming part of the audiovisual reproduction system.

9. Audiovisual reproduction system according to claim 7, which comprises printing means for printing entry tickets or means of recording the entry tickets corresponding to artistic events shown on the display means (62), on a portable electronic object.

10. Audiovisual reproduction system according to claim 7, wherein the display means use a file in the operating system of the reproduction system to show a screen on the display means inviting the user to answer a series of questions by touching the touch screen, the answers to the questions then being stored in a file stored in the memory means to be sent later to the downloading center for processing.

11. Audiovisual reproduction system according to claim 10, wherein the display of the series of questions is initiated after a given song has been selected, or as a function of the number of selections made by the user.

12. Audiovisual reproduction system according to claim 7, wherein the information related to each image and/or animation is stored in a downloadable file on the memory means (21) of the audiovisual reproduction system through a request sent by the host server.

13. Audiovisual reproduction system according to claim 7, wherein the display means in the audiovisual reproduction system are used after a determined number of paying musical selections have been made, to display

an interactive advertisement recorded in a file in the memory means, and consisting of a game in which the user can either win a musical selection, or answer a questionnaire recorded in the memory means of the system, or obtain free tickets to attend an event.

14. Audiovisual reproduction system comprising a central unit controlling display means, memory means controlled by an operating system comprising a tools and services library, wherein an operator can access a module in the tools and services library, to offer the manager of the audiovisual reproduction system a given number of credits, one credit corresponding to the fee necessary to select a song, the number of credits being stored in a file on the memory means, this file being updated each time that the manager uses a credit and each time that the operator supplies one or more credits.

15. Audiovisual reproduction system according to claim 14, wherein credits supplied by the operator can be used within a given time range determined by a program module that displays a special screen for selection of time ranges within which the credits in the reserve may be used.

16. Audiovisual reproduction system according to claim 14, wherein credit reserve can only be used by the manager, and is controlled by the manager entering a confidential code requested every time before the use of a credit in the reserve is validated.

17. Audiovisual reproduction system according to claim 14, wherein the operation consisting of crediting the credit reserve can only be used by the operator by entering a confidential code requested every time before adding a credit to the reserve is validated.

18. Audiovisual reproduction system according to claim 1, wherein an operator can limit the ranges of

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ABSTRACT

Inventor : Guy NATHAN

Audiovisual reproduction system comprising a central unit managing a sound control circuit, and a telecommunications modem connected to a distribution network controlled by a host server, through a
5 multitask operating system created around a tools and services library, characterized in that the operating system comprises a function that adjusts the sound control circuit to couple volumes in the various areas in which the loudspeakers in the audiovisual
10 reproduction system are used, this function being accessible through a management mode of the multitask operating system, the coupling maintaining the ratios between the various volumes in each area when the volume in one area is modified.

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Figure 1.

RULE 63 (37 C.F.R. 1.63)
DECLARATION AND POWER OF ATTORNEY
FOR PATENT APPLICATION
IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

As a below named inventor, I hereby declare that my residence, post office address and citizenship are as stated below next to my name, and I believe I am the original, first and sole inventor (if only one name is listed below) or an original, first and joint inventor (if plural names are listed below) of the subject matter which is claimed and for which a patent is sought on the invention entitled:

AUDIOVISUAL REPRODUCTION SYSTEM

the specification of which (check applicable box(es)):

☐ is attached hereto
☒ was filed on 21 July 1999 as U.S. Application Serial No. (To Be Assigned) (Atty Dkt. No. 871-64)
☐ was filed as PCT International application No. _____ on _____
and (if applicable to U.S. or PCT application) was amended on _____

I hereby state that I have reviewed and understand the contents of the above identified specification, including the claims, as amended by any amendment referred to above. I acknowledge the duty to disclose information which is material to the patentability of this application in accordance with 37 C.F.R. 1.56. I hereby claim foreign priority benefits under 35 U.S.C. 119/365 of any foreign application(s) for patent or inventor's certificate listed below and have also identified below any foreign application for patent or inventor's certificate having a filing date before that of the application on which priority is claimed or, if no priority is claimed, before the filing date of this application:

Priority Foreign Application(s):

Application Number <u>98 09352</u>	Country <u>France</u>	Day/Month/Year Filed <u>22 July 1998</u>
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I hereby claim the benefit under 35 U.S.C. §119(e) of any United States provisional application(s) listed below.

Application Number	Date/Month/Year Filed
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I hereby claim the benefit under 35 U.S.C. 120/365 of all prior United States and PCT international applications listed above or below and, insofar as the subject matter of each of the claims of this application is not disclosed in such prior applications in the manner provided by the first paragraph of 35 U.S.C. 112, I acknowledge the duty to disclose material information as defined in 37 C.F.R. 1.56 which occurred between the filing date of the prior applications and the national or PCT international filing date of this application:

Prior U.S./PCT Application(s):

Application Serial No.	Day/Month/Year Filed	Status: patented pending, abandoned
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I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon. And I hereby appoint NIXON & VANDERHYE P.C., 1100 North Glebe Rd., 8th Floor, Arlington, VA 22204-4714, telephone number (703) 816-4000 (to whom all communications are to be directed), and the following attorneys thereof (of the same address) individually and collectively my attorneys to prosecute this application and to transact all business in the Patent and Trademark Office connected therewith and with the resulting patent: Arthur R. Crawford, 25327; Larry S. Nixon, 25640; Robert A. Vanderhye, 27076; James T. Hosmer, 30184; Robert W. Farris, 31352; Richard G. Besha, 22770; Mark E. Nushbaum, 32348; Michael J. Keenan, 32106; Bryan H. Davidson, 30251; Stanley C. Spooner, 27393; Leonard C. Mitchard, 29009; Duane M. Byers, 33363; Jeffrey H. Nelson, 30481; John R. Lastova, 33149; H. Warren Burnam, Jr. 29366; Thomas E. Byrne, 32205; Mary J. Wilson, 32955; J. Scott Davidson, 33489; Alan M. Kagen, 36178; William J. Griffin, 31260; Robert A. Moian, 29834; B. J. Sadoff, 36663; James D. Berquist, 34776; Updeep S. Gill, 37334; Michael J. Shea, 34725; Donald L. Jackson, 41090; Michelle N. Lester, 32331; Frank P. Presta, 19828; Joseph S. Presta, 35329.

1.	Inventor's Signature: Inventor:	<u>Guy</u> (first) <u>MI</u> (state/country) <u>NATHAN</u> (last) <u>France</u> (citizenship)	Date: <u>July 28, 1999</u>
	Residence (city):	<u>Yerres</u>	
	Post Office Address:	<u>1, rue Jeanne d'Arc, Yerres, France</u>	
	(Zip Code):	<u>91330</u>	
2.	Inventor's Signature: Inventor:		Date: _____
		(first) <u>MI</u> (state/country) _____ (last) _____ (citizenship)	
	Residence (city):	_____	
	Post Office Address:	_____	
	(Zip Code):	_____	